

CS 161 Week 4 Worksheet
Loops, Functions, String objects (2 points)
Submission Due Date : 02 / 07 / 2021 11.59 pm

1. Write a loop that will print out every multiple of 15 less than 158, and explain/justify why you picked the type of loop you did.

2. i. When would you use an **if** versus **switch**?

ii. What is the difference between (a) and (b)

a.

```
switch(1) {  
    case 1: int x = 0;  
            std::cout << x << '\n';  
            break;  
    default:  
            std::cout << "default\n";  
            break;  
}
```

b.

```
switch(1) {  
    case 1: { int x = 0;  
            std::cout << x << '\n';  
            break;  
            }  
    default: std::cout << "default\n";  
            break;  
}
```

3. Answer the following question

a. In the real world, when would you use/say each of these for solving a problem: for, while, and do/while loops.

b. We have begun to use c++ strings, what is different about strings from other data types we have seen like int, float, char?

4. Write the loop and code that counts all the 'j's in a string, str? Code snippet to start with is given below

```
#include <iostream>  
#include <string>  
using namespace std;  
int main() {  
    string str;  
  
    cout << "Enter a string: ";  
    cin >> str;  
  
    return 0;  
}
```

5. Correct the logic error in the following function, describe what the function does/what is returned from the function, and show how you would call the function.

```
int my_fun(string str) {  
    int num;  
    for(int i=0; i<str.size(); i++) {  
        num+=(int) str.at(i);  
    }  
    return num;  
}
```

//How would you call my_fun function?

6. Is there an application for while, for, or do-while loops in Assignment 2?